

A New Species of *Licuala* (Palmae) from Peninsular Malaysia

SAW LENG GUAN¹ and JOHN DRANSFIELD²

¹Forest Research Institute Malaysia, Karung Berkunci 201, 52109 Kuala Lumpur, Malaysia.

²Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE, U.K.

EFFECTIVE PUBLICATION DATE: 15 MAR 1990

Abstract

A new species of understorey palm, *Licuala thoana* L.G. Saw & J. Dransf. is described from Johor, Peninsular Malaysia.

Introduction

Centred in the Malesian region, there are about 25 species of *Licuala* native to Peninsular Malaysia (Furtado 1940). This genus of mostly understorey fan-leaved palms is one of the most conspicuous and common components of the forest undergrowth. Most species are rather local in distribution. In fact in Peninsular Malaysia alone, about 19 species are said to be endemic. This rather diverse genus is greatly in need of a general revision.

Five species of *Licuala* were recorded in the Ulu Endau area (Dransfield & Kiew 1987) during the Malaysian Heritage and Scientific Expedition to the Endau-Rompin area (Kiew et al. 1987). Two of these are endemic to Johor (*L. kiahii* Furt. and *L. lanuginosa*). With the discovery of this new species, another rare but locally common species is added to the area of the proposed National Park. Although the genus needs a general revision, we feel the need to describe this new species in order to draw attention to the uniqueness of this area from a conservation standpoint.

All the native peninsular Malaysian species of *Licuala* have fronds divided into segments and generally circular in outline. This new species is distinct in having fronds that are usually undivided and paddle-shaped. The species epithet honours our friend and colleague, Dr. Tho Yow Pong of the Forest Research Institute Malaysia, for his enthusiasm and diligence for conserving the Endau-Rompin area.

Licuala thoana L.G. Saw & J. Dransf. sp. nov.

A ceteris speciebus Peninsulae Malayanae folio plerumque indiviso statim distinguibilis; floribus dense ferrugineo-lanuginosis et fructibus immaturis roseis *L. ferrugineae* Griff. affinis sed folio et inflorescentia minima bene distincta. *Typus*: Johor, Saw Leng Guan FRI 36354 (holotypus KEP: isotypus K).

Solitary acaulescent undergrowth palm. Stem subterranean, c. 30 mm diam. Leaves c. 8 in crown, marcescent; leaf base sheathing in the basal 10 cm, c. 5 cm wide at the insertion, the sheath lacking a conspicuous persistent ligule and disintegrating into coarse, rather fragile fibres, the abaxial sheath surface bearing scattered caducous dot-like scales; petiole 21–40 cm long, triangular in cross section, c. 7 mm wide, c. 5 mm thick, armed through much of its length with rather regularly arranged, marginal spines to 2.5×1 mm, the spines shorter or lacking in the distal portion, petiole glabrous adaxially, abaxially bearing scattered dot-like scales; leaf-blade usually entire, broadly paddle-shaped, rarely divided into 3 segments, the two lateral narrower than the centre, the entire blade $34\text{--}51 \times 25\text{--}30$ cm, lower margins smooth, distal

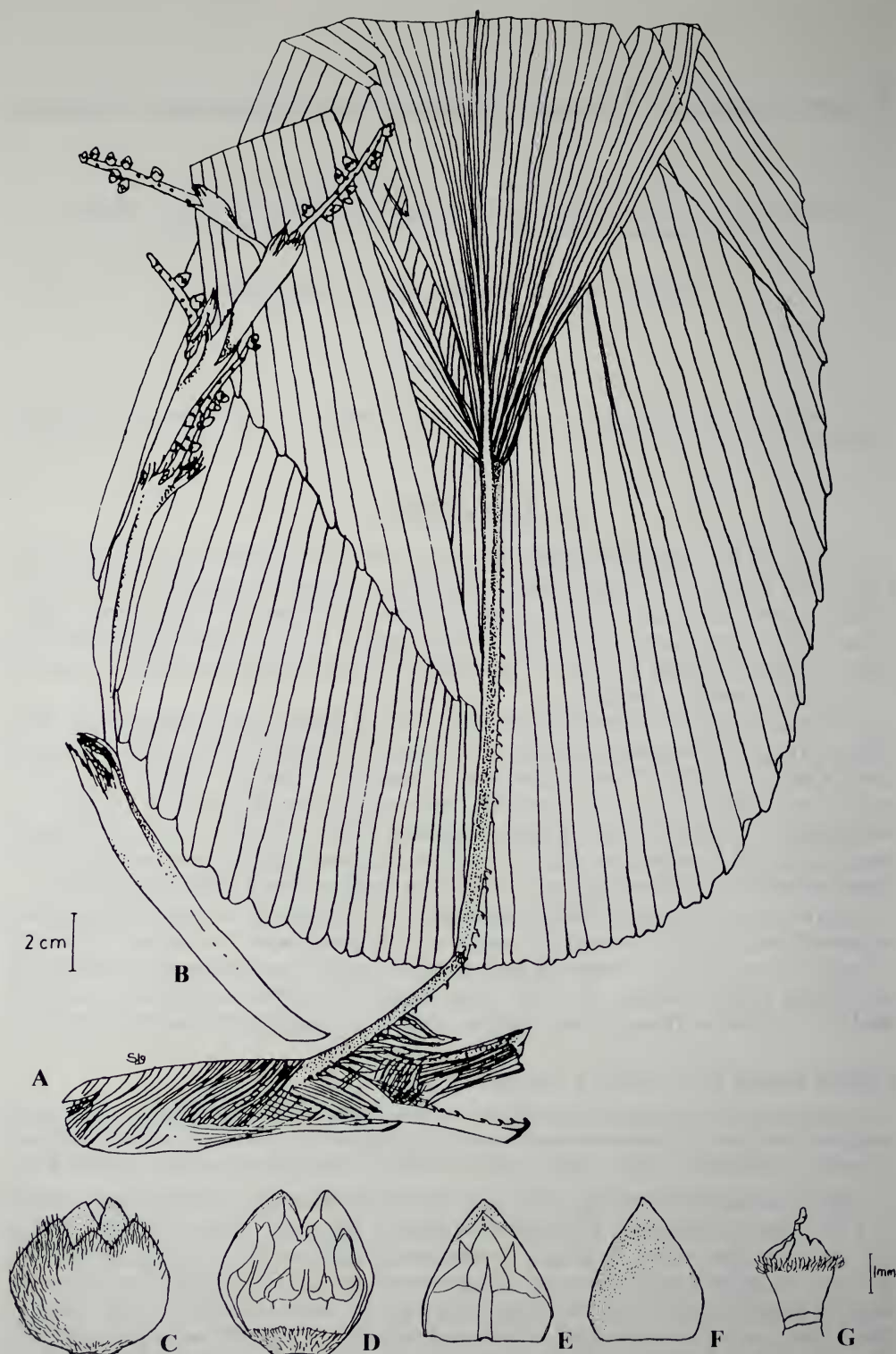


Fig. 1. *Licuala thoana*. A sheathed stem and one leaf; B inflorescence; C flower; D flower, one petal removed to show androecium; E petal, interior view; F petal exterior view; G gynoecium. All from FRI/36354. Drawn by Saw Leng Guan.

margin shallowly induplicate lobed, with shorter indentations associated with abaxial ribs, and deeper indentations associated with adaxial ribs, in all the blade with c. 17 folds on each side of the costa, blade glabrous adaxially, abaxially with scattered caducous brown indumentum, especially along the folds. Inflorescence interfoliar to 30 cm long, bearing 2–3 spicate partial inflorescences; peduncle to 21 cm long, semi-circular in cross section, c. 4 mm wide at the base; prophyll strongly 2-keeled, strictly tubular, c. 8×1.2 cm, apically becoming somewhat fibrous, abaxially covered in abundant rusty-brown indumentum; bracts subtending partial inflorescences 3, strictly tubular, $25\text{--}50 \times 7\text{--}11$ mm, distally disintegrating into soft fibres 8–25 mm long, abaxially the bracts covered with rusty-brown indumentum; rachillae to 45×2.5 mm, very densely covered in rusty-brown tomentum composed of hairs to 1.5 mm long, rachilla bracts minute, obscured by the hairs. Flowers irregularly triangular-ovoid, c. 5×5 mm, borne singly on short protuberances c. 0.5 mm high, 1 mm diam.; calyx very thick, coriaceous, tubular in basal 1 mm, with 3 gibbous, rounded-triangular lobes to 3×3 mm, the margins entire, abaxially covered in shaggy brown hairs to 0.3 mm long; corolla very thick, coriaceous, explanate at anthesis, only slightly longer than the calyx, tubular in basal 2 mm, with 3 triangular lobes 2×3 mm, abaxially covered in densely adpressed brown hairs, adaxially lobes marked with impressions of anthers; staminal ring borne at the mouth of the corolla tube, 0.7 mm high, the 6 free filaments equal, c. 0.6 mm long, anthers somewhat apiculate, 1.2×0.8 mm; ovary turbinate, c. 2×1.5 mm, covered with a ring of dense adpressed brown hairs at the widest point, style slender, 1×0.1 mm. Mature fruit not known; immature fruit with 1–3 carpels developing, 5×2 mm in available material, bright pink.

Peninsular Malaysia. Johor: Labis Forest Reserve, Sungei Kinchin, logged over lowland dipterocarp forest, alt. 30 m, 26 Aug 1988, *Saw Leng Guan* FRI 36354 (Holotype KEP; isotype K).

Ecology: An understory palm of lowland dipterocarp forest, very common along the Sungei Kinchin flood plain. The palm persists in forest that has been logged although showing signs of frond yellowing when exposed. *L. thoana* is known from this basin and surrounding areas only; it has not been observed at higher elevations, for example the Gunung Beremban massif or the upper elevations of Gunung Keriong. Both mountains are adjacent to the Sungei Kinchin basin. Neither was the palm observed further downstream along the Sungei Endau or the Sungei Jasin.

This is an unusual and easily identified species, immediately distinguishable in Peninsular Malaysia by its usually entire, paddle-shaped leaves, the short inflorescence with unbranched partial inflorescences with axes and flowers all densely covered in rusty-brown hairs and the pink young fruit. In the indumentum of the inflorescence and the fruit coloration it approaches *L. ferruginea* Griff., but the latter is a robust acaulescent species with large leaves divided into many segments and with highly branched inflorescences.

References

- Dransfield, J. and Kiew, R. (1987). An annotated checklist of palms at Ulu Endau, Johore, Malaysia. *Mal. Nat. J.* 41: 257–265.
- Furtado, C.X. (1940). The genus *Licuala* in the Malay Peninsula. *Gard. Bull. Str. Settlements* 11: 31–73.
- Kiew, B.H. et al. (1987). The Malaysian Heritage and Scientific Expedition: Endau-Rompin, 1985–1986. *Mal. Nat. J.* 41: 83–92.